

trils, although this involves an extent of anterior development proportionate to the length of the jaws; and the forward production of these sharp-toothed instruments fitted them, as in the modern Dolphins, for the prehension of agile fishes.

In most Lacertians the median suture of the premaxillaries is soon obliterated; the like obtains in the *Plesiosaurus*, but the suture is persistent in the *Ichthyosaurus*, as in Labyrinthodonts and Crocodiles.

*Note on Anemone nemorosa purpurea.*

By Dr. J. E. GRAY, F.R.S. &c.

In general, the flowers of *Anemone nemorosa* are white, or white with a more or less broad purple streak up the centre of the outside of the outer petals. In a field at Pinner, Middlesex, there are patches of this plant, intermixed with patches of the usual kind, which have a darker foliage, and the flower entirely of a dark purple-lilac. I may also add, that the usual colour of the Primrose in the neighbourhood of Haverfordwest is pale bluish-red; and all gradations between that colour and yellow are to be observed.

*Description of a new species of Woodpecker.* By P. L. SCLATER.

MELANERPES RUBRIGULARIS.

*Supra nitenti-niger: linea circumnuchali ab oculis incipiente, altera utrinque suboculari a rictu latiore, tectricibus alarum superioribus, dorso postico et caudæ tectricibus superioribus, necnon maculis secundariarum trium extimarum apicalibus et in pogonio externo primariarum tertiæ, quartæ et quintæ albis: subtus nitenti-niger, gula media ruberrima, abdomine medio flavicante, lateribus et crisso albo nigroque variegatis; tectricibus alarum inferioribus et remigum pogonio interiore cinerascenti-nigris, maculis quadratis numerosis albis: caudæ rectricibus omnino nigris: rostro et pedibus nigris.*

Long. tota 8·5, alæ 5·4, caudæ 3·5, rostri a fronte 1·0, tarsi 0·8.

This Woodpecker, which is represented by Mr. Bridges as very rare, appears to have escaped the researches of the American naturalists; at least I am acquainted with no record of its existence, though it may have been described quite lately. It appears to be well placed in the genus *Melanerpes*, of which no less than six species are already known to inhabit California, namely *M. erythrocephalus*, *M. torquatus*, *M. thyroideus* (Cassin, B. Cal. pl. 32: *Picus natalia*, Malherbe, Cab. Journ. f. Orn., 1854, p. 271), *M. formicivorus* (Cassin, B. Cal. pl. 2), *M. albolarvatus*, and *M. ruber*. From all these it is quite different in colouring, and may be recognized at once by its black breast and bright scarlet throat-mark, whence I have named it *M. rubrigularis*.

“A very rare bird, the only one of the species I have ever seen. Shot in Trinity Valley, on the pines. Probably this may occur more

frequently in Oregon or the British possessions. Had it been common, I should have seen it in the southern part of the State of California." T. BRIDGES—*Proc. Zool. Soc.* Jan. 12, 1858.

*Some Observations on the mode of life of a Fossorial Hymenopterous Insect, Cerceris arenarius.* By M. H. LUCAS.

The mode of life of several species of the genus *Cerceris* has already been made known; but I am not aware that the observations which I was enabled to make last summer upon the *Cerceris arenarius*, Fab., have yet been signalized by authors. On the 16th July of last year, during very hot and stormy weather, I was at Fontenay-aux-Roses, upon a rocky soil, completely exposed to the south. Upon this ground, covered with a thick layer of fine sand, I observed, in a very circumscribed space, twelve or fifteen cylindrical holes, the margins of which were covered with fresh debris, newly moved, and composed of earth, sand, and plaster; above and in the vicinity of these burrows, of which the depth was nearly three centimetres, hovered some Hymenopterous insects, which I recognized as belonging to the genus *Cerceris*, and as being the *C. arenarius*, Fab. Curious to ascertain the proceedings of these industrious insects, I set myself to observe them, and the following are the results to which this study led me.

In the vicinity of these nests, which there is nothing to protect, I observed individuals of *Cerceris* flying about over the habitations, but did not notice any one that ventured to penetrate into them. These individuals, which I ascertained to be males, placed themselves quite close to the aperture of these dwellings, and waited patiently until their inhabitants issued from them. I also noticed that some of these subterranean conduits were occupied by their inhabitants, for from time to time I saw a *Cerceris arenarius* come to the opening, push away the debris, which might have inconvenienced it, with its broad head, protrude a portion of its thorax, survey the neighbourhood, and agitate its antennæ in all directions.

This manœuvre was continued for a considerable time, and during the agitation into which the inhabitants of these retreats threw themselves, the male held himself in observation, and appeared to be watching the issue of these insects. In fact, as soon as they quitted their abodes, they were pursued by the males, and both were lost in the distance. Not understanding the movements of the males, I took some individuals in their nests, and found that the true proprietors of these burrows were females.

Frequently I saw females flying over the holes, and whilst they were in search of their own habitations, the males threw themselves upon them; but the females, not yielding to their solicitations, got rid of them by pushing them away with their hind-feet, and threw them on the sand, where they fell more or less stupefied.

I also observed that the females, on returning to their habitations, held under their sternum, by means of their feet, some bodies of considerable size, which they buried with great precipitation in